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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MARTIN, NICHOLAS A	

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/894,261	LEWIS ET AL.	
	Examiner	Art Unit	
	Nicholas Martin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/28/01, 4/29/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-17 are presented for examination. Claims 14-17 have been added.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

3. Applicants arguments filed on 03/14/2005 have been fully considered but they are not persuasive.

4. As per remarks, Applicants' argued that (1) Rabenko does not teach or suggest upon detecting idle data received from the first modem over a GSTN network to forward to the other Internet node over the IP network in the payload of a data packet, dropping the detected idle data by not transmitting the data packet.

5. As to point (1), Rabenko teaches upon detecting idle data received from the first modem over a GSTN network to forward to the other Internet node over the IP network in the payload of a data packet, dropping the detected idle data by not transmitting the data packet (Col. 8, lines 24-45; Col. 21, lines 20-27 "...idle codes are replaced with zeros...when an invalid code is detected in the data stream...used to terminate the data stream..."; Col. 72, lines 1-20 "...when to perform frame deletes..."; Col. 93, lines 33-45 "...incoming data packets...over a circuit switched network, such as for example a PSTN line.").

6. As per remarks, Applicants' argued that (2) Rabenko does not teach or suggest reducing the packet network bandwidth used in data relay mode or even identifying the type of data transferred across the packet based network "Col. 64, line 58 – Col. 65, line 3 "...to further reduce the average bandwidth required..."; Col. 18, lines 16-24 "...generates control signals to flag the type of packet, the beginning of the extended header, the beginning of the protocol data unit (PDU)...").

7. As per remarks, Applicants' argued that (3) Rabenko and Ho in view of "Official Notice" do not teach or suggest dropping the detected idle data by not forwarding the data packet over the IP network.

8. As to point (3), Rabenko teaches dropping the detected idle data by not forwarding the data packet over the IP network (Col. 9, lines 23-35 "...provides bi-directional IP traffic between devices...voice and data processor is used for processing and exchanging voice, as well as fax and modem data between packet based networks..."; Col. 21, lines 20-27 "...idle codes are replaced with zeros...when an invalid code is detected in the data stream...used to terminate the data stream..."; Col. 72, lines 1-20 "...when to perform frame deletes..."; Col. 93, lines 33-45 "...incoming data packets...over a circuit switched network, such as for example a PSTN line."). It is obvious to combine these as they both deal with packet based networks utilizing IP protocol for transmission of data wherein Rabenko teaches zeroing out the idle data and terminating the data stream.

9. As per remarks, Applicants' argued that (4) Rabenko and Ho, in view of "Official Notice" do not teach or suggest a modem relay.

10. As to point (4), Ho teaches a relay (Paragraph [0007] "...packet based networks such as frame relay...and IP (internet protocol) for data..."; [0047]). Rabenko teaches a modem packet transfer (Fig. 2; Col. 9, lines 23-35 "...provides bi-directional IP traffic between devices...voice and data processor is used for processing and exchanging voice, as well as fax and modem data between packet based networks..."; Col. 10, lines 55-65 "Data stored in system memory may then be processed and communicated to the cable modem...assembled into USB packets...USB packets may then be communicated to the external device..."; Col. 110, lines 44-48). It is obvious to combine these as they both deal with packet based networks utilizing IP protocol for transmission of data utilizing relay of packets.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

12. Claims 1, 4-5, 8-9 and 12-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Rabenko et al. (hereinafter Rabenko), US 6,765,931.

13. As per claim 1, Rabenko teaches a method implemented in an Internet node for reducing Internet bandwidth used for VoIP modem, a first modem coupled to the Internet node and a second modem coupled to another Internet node (Col. 105, lines 23-32, lines 44-47), the method comprising:

upon detecting no data packets received from the other Internet node over an IP network to transmit to the first modem, regenerating idle data at the Internet node to transmit to the first modem, the regenerated idle data used to maintain a connection between the first modem and the second modem (Col. 7, lines 40-47; Col. 18, lines 30-41; Col. 30, lines 57-60; Col. 37, lines 33-42; Col. 99, lines 53-58); and

upon detecting idle data received from the first modem over a GSTN network to forward to the other Internet node over the IP network in the payload of a data packet, dropping the detected idle data by not forwarding the data packet over the IP network (Col. 21, lines 20-27; Col. 72, lines 1-20; Col. 93, lines 33-45).

14. As per claim 4, Rabenko teaches the method as claimed in Claim 1 wherein the Internet node is an Internet Gateway (Col. 2, lines 1-5; Col. 104, lines 59-64).

15. As per claim 5, Rabenko teaches an apparatus for reducing Internet bandwidth used for transferring data between a first modem and a second modem over an IP

network (Col. 65, lines 1-3; Col. 105, lines 23-32, lines 44-47), the apparatus comprising:

means for detecting idle data received from the first modem over a GSTN network to forward over the IP network (Col. 21, lines 20-27; Col. 93, lines 33-45);

means for dropping the detected idle data by not forwarding the data packet over the IP network (Col. 21, lines 20-27; Col. 72, lines 1-20); and

means for regenerating idle data to transmit to the second modem upon detecting no data packets received over the IP network to forward to the second modem to maintain a connection between modems (Col. 7, lines 40-47; Col. 18, lines 30-41; Col. 30, lines 57-60; Col. 37, lines 33-42; Col. 99, lines 53-58).

16. Claims 8 does not teach or define any new limitations above claim 4 and therefore is rejected for similar reasons.

17. As per claim 9, Rabenko teaches an Internet node comprising:

an idle detect module which detects idle data received from a first modem coupled to the Internet node over a GSTN network to be forwarded to a second modem over an IP network in the payload of a data packet and drops the detected idle data by not forwarding the data packet over the IP network (Col. 21, lines 20-27; Col. 72, lines 1-20; Col. 93, lines 33-45; Col. 105, lines 23-32, lines 44-47); and

an idle generate module which regenerates idle data to transmit to the first modem upon detecting no data packets received from another Internet node over the IP network from a second modem coupled to the other Internet node to be forwarded to the first modem, the regenerated idle data used to maintain a connection between the

first modem and the second modem (Col. 7, lines 40-47; Col. 18, lines 30-41; Col. 30, lines 57-60; Col. 37, lines 33-42; Col. 99, lines 53-58; Col. 105, lines 23-32, lines 44-47).

18. Claims 12 does not teach or define any new limitations above claims 4 and 8 and therefore is rejected for similar reasons.

19. As per claim 13, Rabenko teaches a computer program product, for reducing Internet bandwidth used for transferring data between a first modem and a second modem over an IP network (Col. 65, lines 1-3; Col. 105, lines 23-32, lines 44-47), the first modem coupled to an Internet node, the second modem coupled to an Internet node, the first Internet node and the second Internet node coupled to the IP network (Col. 13, lines 38-43; Col. 105, lines 23-32, lines 44-47), the computer program product comprising a computer usable medium having computer readable program code thereon, including program code which:

regenerates idle data in the first network node to transmit to the first modem, upon detecting no data packets received from the second Internet node over the IP network to forward to the first modem (Col. 3, lines 52-55; Col. 7, lines 40-47; Col. 18, lines 30-41; Col. 30, lines 57-60; Col. 37, lines 33-42; Col. 105, lines 23-32, lines 44-47); and

detects idle data received from the first modem over a GSTN network to forward to the second Internet node over the IP network in the payload of a data packet, the regenerated idle data used to maintain the connection between the first modem and the

second modem (Col. 3, lines 52-55; Col. 21, lines 20-27; Col. 72, lines 1-20; Col. 93, lines 33-45; Col. 99, lines 53-58); and

drops the detected idle data by not forwarding the data packet over the IP network (Col. 3, lines 52-55; Col. 21, lines 20-27; Col. 72, lines 1-20).

20. As per claim 14, Rabenko teaches the method of claim 1, wherein the idle data is transmitted over the IP network in a modem relay payload of the data packet (Fig. 2; Fig. 49; Col. 9, lines 23-35; Col. 10, lines 55-65; Col. 110, lines 44-48).

21. As per claim 15, Rabenko teaches the method of claim 1, wherein the data packet includes an RTP header (Col. 42, lines 38-47).

22. AS per claim 16, Rabenko teaches the method of claim 1, wherein the idle data transmitted over the GSTN network is encoded in a PCM stream (Col. 50, lines 46-61; Col. 93, lines 33-45).

23. As per claim 17, Rabenko teaches the method of claim 1 further comprising:

establishing a modem connection between the first modem and the second modem (Col. 99, lines 53-58).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

24. Claims 2-3, 6-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenko et al. (hereinafter Rabenko), US 6,765,931 and HO et al. (hereinafter HO), US 2003/0133461, in view of 'Official Notice'.

25. As per claim 2, Rabenko does not explicitly teach the method as claimed in Claim 1 wherein the idle data is 'FF'.

26. HO teaches dropping idle data from transmission by identifying the idle data with an idle flag (Paragraphs [0007] and [0047]).

27. Rabenko and HO do not teach the method in Claim 1 wherein the idle data is 'FF'. However 'Official Notice' is taken by the Examiner that allocating idle data to memory is well known. It would have been obvious to one of ordinary skill in the art to allocate idle data as a distinct value or flag so that the idle data can be identified and dropped from the transmission. Allocating idle data to a set value or flag would improve functionality by increasing the ease and efficiency as to detecting such data and would in turn increase the functionality of the overall transmission.

28. As per claim 3, Rabenko does not explicitly teach the method as claimed in Claim 1 wherein the idle data is '7E'.

29. HO teaches dropping idle data from transmission by identifying the idle data with an idle flag (Paragraphs [0007] and [0047]).

30. Rabenko and HO do not teach the method in Claim 1 wherein the idle data is '7E'. However 'Official Notice' is taken by the Examiner that allocating idle data to memory is well known. It would have been obvious to one of ordinary skill in the art to allocate idle data as a distinct value or flag so that the idle data can be identified and

dropped from the transmission. Allocating idle data to a set value or flag would improve functionality by increasing the ease and efficiency as to detecting such data and would in turn increase the functionality of the overall transmission.

31. Claims 6 and 10 do not teach or define any new limitations above claim 2 and therefore are rejected for similar reasons.

32. Claims 7 and 11 do not teach or define any new limitations above claim 3 and therefore are rejected for similar reasons.

33. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Martin whose telephone number is (571) 272-

3970. The examiner can normally be reached on Monday - Friday 8:30 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3970.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nicholas Martin
June 2, 2005

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
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